REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated June 25, 2003. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-2, 4-5, 7-13, and 17-20 are under consideration in this application. Claims 3 and 14-16 are being cancelled without prejudice or disclaimer. Claims 1-2, 4-5, 7-13, and 17-19 are being amended, as set forth above in the marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention. A new claim 20 is being added to recite the cancelled claim 6.

Formality Rejections

Claims 1-5 and 7-18 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. As indicated, the claims have been amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Additional Amendments

The claims are being amended to correct formal errors and/or to better disclose or describe the features of the present invention as claimed. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Prior Art Rejections

Claims 1-5 and 7-18 were rejected under 35 U.S.C. § 103(a) as being unpatenable over the abstract of JP 2000-05592 stated on page 3, line 9 of the present specification (hereinafter "JP'592") and an article by Jordan et al. (Analytical Chemistry, Vol. 69, no. 24, December 15,

1997, pp. 4939-4947; Hereinafter "Jorden") and WO 01/23888 (hereinafter "WO'888"). These rejections have been carefully considered, but are most respectfully traversed.

The chemical sensor (Figs. 3-4) according to the invention, as now recited in claim 1, comprises: a planer baseplate; a deposition film of a non-gold metal 12, 12' arranged in a lattice on the baseplate; a gold deposition film 63 formed over the deposition film of a non-gold metal 12, 12' formed on the baseplate; and a plurality of particles 3 attached to the gold deposition film on any one of a first region 14 where the deposition film of a non-gold metal 12, 12' is formed thereunder and a second region 13 where the deposition film of a non-gold metal 12, 12' is not formed thereunder. The biochemical probes 4 are immobilized to the particles 3 (page 15, line 3 to page 17, line 14).

Commercially available particles with surface modification are used as the particles serving as carriers to catch DNA probes (page 13, lines 18-19). The particles are selectively attached on the regions with (e.g., Fig. 4(E)) or without (e.g., Fig. 3(D)) a deposition film of a non-gold metal 12, 12' thereunder depends upon the concentration of carbodiimide and the thickness ratio of the gold film to the metal film so as to control the shape of each section 2 where the particles are attached and the pattern of the sections (page 17, lines 18-22). Such a sensor is simple an easy to use for detecting a substance of interest is in a large number of specimens (page 35, lines 10-14).

The invention is also directed to a method for manufacturing a chemical sensor, as now recited in claim 12, comprising: attaching biochemical probes to each surface of a plurality of particles; providing a planar baseplate; forming a deposition film of a non-gold metal arranged in a lattice on the baseplate; forming a gold deposition film over the deposition film of a non-gold metal on the baseplate; and attaching the plurality of particles attached with the probes to the gold deposition film on any one of a first region where the deposition film of a non-gold metal is formed thereunder and a second region where the deposition film of a non-gold metal is not formed thereunder.

The invention is further directed to a method for marketing a chemical sensor, as now rejected in claim 19, comprising: providing the chemical sensor recited in claim 1, while regions where the plurality of particles are formed make into sections; and marketing said chemical sensor together with an electronic medium storing data of a number of said particles fixed per unit area in each of said sections.

Applicants respectfully contend that none of the cited prior art references teaches or suggests such "a chemical sensor with a deposition film of a non-gold metal arranged in a lattice on the baseplate and covered with a gold deposition film so as to be selectively attached particles already attached with biochemical probes to some regions with or without the non-gold metal deposition film buried thereunder".

In contrast, JP'592 (Fig. 8) merely shows fine macromoleculars and fine polystyrene particles attached on a gold film 51 on the substrate 50. JP'592 does not teach any non-gold metal deposition film arranged in a lattice and buried between the baseplate and the gold deposition film. Neither does JP'592 teach selectively attaching particles already attached with biochemical probes to some regions with or without the non-gold metal deposition film buried thereunder.

Jorden shares the same deficiencies as JP'592. Jorden does not teach any non-gold metal deposition film arranged in a lattice and buried between the baseplate and the gold deposition film. Neither does Jorden teach selectively attaching particles already attached with biochemical probes to some regions with or without the non-gold metal deposition film buried thereunder. Jorden (Fig. 1) only shows DNA probes directly immobilized on the modified gold film without any particles therebetween which serve as carriers to catch the probes.

As to WO'888, it fails to compensate for JP'592 and Jorden's deficiencies.

Accordingly, Applicants contend that the cited conflicting teachings of the prior art references would not motivate their combination such that their combination would embody each and every feature of the present invention as now claimed in claims 1, 12 and 19 from which claims 2, 4, 5, 7-11, 13, 17, 18 and 20 depend. The difference is more than sufficient that the present invention as now claimed would not have been rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of

the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344

Juan Carlos A. Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive, Suite 1400
Falls Church, Virginia 22042
(703) 641-4200

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